

CLAIM AMENDMENTS

1-52 (Canceled)

53. (New) A biocompatible gripping device for surgical use, the device comprising gripping means having at least one deformable gripping element, said deformable gripping element being deformable from a non-deformed condition to a deformed condition on gripping an article, the gripping element comprising a shape memory material having an austenitic phase and a martensitic phase, wherein the gripping element is in the martensitic phase at a temperature below the martensite to austenite phase transition temperature when the article is gripped to deform the gripping element, and the gripping element requires to be heated to a temperature above the martensite to austenite phase transition temperature to return the gripping element to the non-deformed condition.

54. (New) A biocompatible gripping device according to claim 53 wherein the martensite to austenite phase transition temperature at which the gripping element can return to the non-deformed condition is a temperature between 50°C and 100°C.

55. (New) A biocompatible gripping device according to claim 53 wherein the shape memory material comprises a shape memory alloy.

56. (New) A biocompatible gripping device according to claim 55 wherein the shape memory alloy is a nominally equitomic alloy.

57. (New) A biocompatible gripping device according to claim 56 wherein the shape memory alloy is a titanium-nickel alloy.

58. (New) A biocompatible gripping device according to claim 57 wherein the shape memory alloy is a titanium-nickel alloy having substantially 52 atomic % titanium and substantially 48 atomic % nickel.

59. (New) A biocompatible gripping device according to claim 53 wherein the deformable gripping element is selected from a coating and an insert.

60. (New) A biocompatible gripping device according to claim 59 wherein the deformable gripping element is applied to the gripping means by brazing, soldering, riveting, sintering or compression fit.

61. (New) A biocompatible gripping device according to claim 53 wherein the device comprises a pair of co-operating gripping members, each of which includes a gripping surface whereby at least one of said surfaces is provided by said deformable gripping element.

62. (New) A biocompatible gripping device according to claim 61 wherein each of said gripping surfaces is provided by a respective one of said deformable gripping elements.

63. (New) A biocompatible gripping device according to claim 62 in the form of a surgical needle holder or forceps.

64. (New) A method of using a biocompatible gripping device that comprises gripping means having at least one deformable gripping element, the gripping element comprising a shape memory material having an austenitic phase and a martensitic phase, wherein the method comprises gripping an article when the gripping element is at a temperature below the martensite to austenite phase transition temperature and thereby deforming the gripping element from a non-deformed condition to a deformed condition, and thereafter heating the gripping element to a temperature above the martensite to austenite phase transition temperature and thereby returning the gripping element to the non-deformed condition.

65. (New) A method according to claim 64 comprising heating the gripping element to a temperature between 50°C and 100°C to return the gripping element to the non-deformed condition.

66. (New) A method according to claim 64 wherein the shape memory material comprises a shape memory alloy.

67. (New) A method according to claim 66 wherein the shape memory alloy is a nominally equitomic alloy.

68. (New) A method according to claim 67 wherein the shape memory alloy is a titanium-nickel alloy.

69. (New) A method according to claim 68 wherein the shape memory alloy is a titanium-nickel alloy having substantially 52 atomic % titanium and substantially 48 atomic % nickel.

70. (New) A method according to claim 64 wherein the deformable gripping element is selected from a coating and an insert.

71. (New) A method according to claim 70 wherein the deformable gripping element is applied to the gripping means by brazing, soldering, riveting, sintering or compression fit.

72. (New) A method according to claim 64 wherein the device comprises a pair of co-operating gripping members, each of which includes a gripping surface whereby at least one of said surfaces is provided by said deformable gripping element.

73. (New) A method according to claim 72 wherein each of said gripping surfaces is provided by a respective one of said deformable gripping elements.

74. (New) A method according to claim 73 in the form of a surgical needle holder or forceps.